

note 894
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DISCLOSURES UNDER CONSIDERATION

Philip Morris Incorporated
Privileged and Confidential

4 February 1981

Code 1 - Offensive/Urgent
Code 2 - Defensive/Urgent
Code 3 - Offensive/Normal
Code 4 - Defensive/Normal

**653 A METHOD FOR PREPARING A RECONSTITUTED TOBACCO
PRODUCT USING PRECIPITATION/COAGULATION OR CROSS-
LINKING TECHNIQUES**

G. Keritsis
Tobacco Materials/Burns/Gannon

The disclosure relates to smoking materials and the processes for making them through the use of extrusion and/or coating techniques. The processing techniques are designed to take advantage of the particular properties that characterize certain desirable natural and/or synthetic polymers which possess ionic or nonionic groups in their structure and/or unique characteristics for solvents, melt, or heat-softening. These polymers supply the main fuel-producing medium for non-tobacco and/or tobacco smoking formulations.

Related to PM 641.

Inskeep
11-4-74 Disclosure received.
10-7-75 Filed under Disclosure Document program in USPTO.
5-27-76 Disclosure to WLKT for application preparation.
12-9-77 Draft received—to inventor for review; combined with PM 641.
2-14-78 Additional information received from inventor.
1-9-81 New examples received from inventor.
1-19-81 File reopened.

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0000016289

689 CROSS-LINKED SMOKING MATERIAL

G. Keritsis

Tobacco Materials/Burns/Gannon

Tobacco or non-tobacco materials are treated by spraying, dipping, coating, or homogenizing certain classes of compounds capable of reacting with a substrate or of forming water-insoluble films or coatings with a substrate. Filling capacity, structure stabilization, moisture insensitivity, strength (wet and dry), and processability are improved.

Related to 641.

WLKT/Inskeep

1-75 Disclosure received.
10-75 Submitted under disclosure document program.
1-76 Abstract to management for approval.
3-76 Disclosure to WLKT for application preparation.
12-77 Combined with 641--draft application received.
11-80 New data received.
12-80 Split out of 641--new data to WLKT for consideration.

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779 MEANS TO MEASURE TOBACCO FIRMNESS ON CIGARETTE MAKER

J. Osmalov

Tobacco Services/Osmalov/Gannon

A cigarette rod firmness control device has a firmness detector head comprising a differential transformer coupled to a detector shoe, which is biased toward and rides on a dynamically-flowing rod of tobacco. The detector shoe is displaced to and from the axial center line of the tobacco rod in response to the firmness of the rod, which is dependent on the rate of flow of tobacco into the rod forming garniture. The tobacco feed rate into the rod forming garniture is increased or decreased in response to signals generated by the level and the variations of rod firmness at the detector shoe to control rod firmness to within desired limits.

Sarofeen

5-25-77 Disclosure received.
Given to G. Brandt.
2-8-80 Memos from Gannon to Palmer and Kothe re status.
2-12-80 GMJS expects to receive a written analysis/opinion from Brandt that this disclosure is anticipated.
3-7-80 Opinion received.
3-11-80 Inactivated pending further developments.
7-18-80 Reactivated, new information on its way.
7-21-80 New information received.
9-4-80 Need more details of short tongue construction.
11-5-80 New data not yet compiled--per C. Irving.
1-15-81 No new data at this time.

0000016290

796 BIOSYNTHESIS OF A TOBACCO FLAVORANT OR TOBACCO SMOOTHER--FERMENTED TOBACCO

B. Semp, D. Teng, and S. Tenhet
Biomaterials/O'Donohue/Farone/Lowitz

Organisms obtained from fermented tobacco are transferred into sterile tobacco extracts and by employing various fermentation techniques, flavorants similar to those present in fermented tobacco are produced. These flavorants may then be applied to various tobacco materials to enhance or enrich their subjective organoleptic characteristics.

Hutcheson
CODE 2

10-28-77 Disclosure received.
8-78 Preliminary search completed on PM data base.
3-79 Experimental work underway.
9-6-79 Additional art found on "accelerated fermentation" and forwarded to inventors. Similar concepts disclosed in US 516778 and 1262622.
9-10-79 Memo to inventors reviewing prior art.
9-79 Search requested from outside firm.
10-15-79 Search received; results under evaluation; report to be written.
6-24-80 Memo to inventors requesting a review of memo dated 10 September 1979. Awaiting response regarding search results.
7-24-80 Report of search results written by B. Monroe and sent to inventors.
9-10-80 No response yet from inventors regarding search results.

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0000016291

800 COLOR AND ODOR REMOVAL FROM UNCURED TOBACCO

B. Semp and D. Teng
Biomaterials/O'Donohue/Farone/Lowitz

Green tobacco is treated with a lipase enzyme to remove lipids. The green odor is eliminated and smoking quality improved.

Hutcheson
CODE 2

11-10-77 Disclosure received.
8-78 Preliminary search completed on PM data base.
3-79 Experimental work completed.
9-11-79 Search requested from outside firm.
10-15-79 Search received; results under evaluation; report to be written.
6-15-80 Preliminary draft underway.
7-7-80 Examples to inventors for review; specific information was requested.
7-24-80 Search report written by B. Monroe and sent to inventors.
9-10-80 No comments from inventors at this time re memo of 7-7 or search results.

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840 METHOD FOR REDUCING CO DELIVERY IN NONFILTERED CIGARETTES

R. Ikeda
Cigarette Development/Gauvin/Meyer

A cigarette is made with a wrapper selected to pass through it gases of specific molecular size. Ducts are provided for passing a maximum of the smoke volume contiguously to the wrapper to maximize transfer of the said gases through the paper. Small gas molecules exit into the ambient air and out of the smoke stream prior to entering the smoker's mouth.

Sarofeen
CODE 4

6-23-78 Disclosure received.
Awaiting tests by inventor to develop method.
Close art.
New disclosure to be submitted by Ikeda and Houck.
8-30-79 Talked with Houck--project still alive but the way to go with the construction is still being determined.
4-14-80 Waiting for further details.
9-4-80 New details not received to date.
11-4-80 Reviewed latest Filtrona samples with Ikeda.
1-15-81 New details not received to date.

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0000016292

856 ELECTRON BOMBARDMENT FOR CONTROLLING BEETLE INFESTA-
TION

R. de la Burde
Tobacco Materials/Burns/Gannon

Related to earlier Laszlo case.

Palmer

CODE 4

10-18-78 Disclosure received.

10-20-78 Awaiting further data.

1-14-80 No further results to be expected--Burde.

2-8-80 Memo from Gannon re status; 2-12-80 Palmer reply.

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860 NOVEL FILTER FOR DELIVERY OF MAXIMUM FLAVOR

D. Keel and W. Bell
Flavor Development/Daylor/Meyer

Filter that contains a tube(s), or components that fit together to form a tube(s), in a matrix of filter tow or a solid (or foam) rod by which a portion of raw, unfiltered smoke can be delivered to the mouth of the smoker with a volume of air dilutin provided by means of perforation or porosity of the tipping paper with or without flutes, bumps, or other known means.

INACTIVE Inskeep
CODE 2

12-1-78 Disclosure received.

5-7-79 Have only subjective data, expect analytical results soon.

12-6-79 Information received from Keel, more expected.

2-29-80 Panel results etc. maybe in 2 weeks; possibly more later.

3-21-80 Note to inventors about results.

5-22-80 Some data received.

6-10-80 Interview with Keel. Different embodiment now being pursued. Search set up.

12-5-80 Inactivated per Daylor.

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0000016293

865 REDUCED DELIVERY SMOKING PRODUCT

B. Semp and D. Teng
Biomaterials/O'Donohue/Farone/Lowitz

Microbial treatment of a tobacco extract followed by recombination with the fibrous portion of the tobacco produces a cigarette material that yields less HCN and CO. Additionally the TPM of the treated versus untreated also show reductions.

Related to 810 and 838.

Hutcheson

CODE 1

12-21-78 Disclosure received.
6-29-79 Disclosure sent to WLKT for evaluation in view of prior filings of 810 and 838.
7-17-79 Letter to WLKT re how to proceed.
9-79 Search requested from outside firm.
9-5-79 Development work in the pilot plant may result in additional filings in this area--no definitive data at this time.
10-15-79 Search received.
11-6-79 Discussed in depth with inventors and T. Gillis; determined that additional experimental data is necessary to define optimum limits of operation for achieving best gas phase reduction.
4-3-80 Note to files recommending moving this disclosure forward as soon as possible; Lowitz/Farone concur.
5-8-80 Inventor Semp hopes to have report completed shortly.
7-30-80 Pertinent data available--may be incorporated in PM 939 Fed-Batch application.
9-9-80 Semp indicated that analytical data has been obtained. This data may be suitable for use in PM 939.

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0000016294

875 RECONSTITUTED TOBACCO SHEET

R. Uhl and G. Gellatly
Tobacco Materials/Burns/Gannon

A process for producing a reconstituted tobacco sheet by wet forming on a paper making device except that a high bulk sheet is obtained by eliminating sheet compression due to mechanical pressing to remove water and by eliminating sheet ironing due to drying on a heated cylinder.

INACTIVE

Inskeep
CODE 2

2-14-79 Disclosure received.
8-9-79 Identical disclosure 889 combined herewith.
11-27-79 Progress report being written.
2-29-80 Progress report written--waiting approval.
7-18-80 Report promised this date, not received.
11-80 Report (unissued) received--possible prior art discussed.
1-20-81 Inactivated.

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879 PRODUCTION AND USE OF REACTION FLAVORS FROM YEAST
HYDROLYSATE AND SUGARS

B. Semp, L. Wu, and J. Swain
Flavor Development/Daylor/Meyer
Biomaterials/O'Donohue/Farone/Lowitz

Reaction flavors for smoking products are disclosed. The flavors are prepared by reacting reducing sugars and selected hydrolysates of single-cell protein optionally in the presence of an aldehyde in an essentially solvent-free system. The thus prepared flavors may be incorporated into smoking compositions including tobacco, reconstituted tobacco, non-tobacco substitutes or mixtures thereof.

Hutcheson
CODE 2

3-20-79 Disclosure received.
4-80 Spoke with inventor Wu, and she will submit the necessary experimental data.
5-8-80 Additional information and subjectives submitted and discussed with inventor Wu.

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0000016295

894 USE OF PIPERAZINES AS FLAVORANTS AND/OR COOLING COMPOUNDS

W. Edwards and Y. Houminer
Chemical Research/Sanders/Osdene

Tobacco flavorant and/or cooling compounds selected from 1,4-disubstituted pyrazines and alkylpiperazines wherein the 1,4-substituents are acyl, sulfonyl and carbamido are disclosed.

Hutcheson
CODE 4

- 5-7-79 Disclosure received.
11-20-79 Experimental and synthesis work completed; analytical smoking data will be obtained in the near future.
3-14-80 Sanders indicated that the work was near completion. A draft should be ready shortly.
9-10-80 Houminer indicated that they will organize data and submit for application.

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897 SYNTHESIZING PYROLYTIC PRECURSORS TO PRODUCE ALDEHYDIC-TYPE FLAVORANTS

M. Bourlas and H. Grubbs
Chemical Research/Sanders/Osdene
Analytical Research/Bourlas/Farone/Lowitz

Polymeric flavorants release compounds having controlled thermal decomposition properties producing aldehydic-type flavorants on combustion are disclosed. Prior to smoking, the compounds are non-volatile and non-migratory.

Hutcheson
CODE 2

- 5-7-79 Disclosure received--lacks detail.
9-4-79 Preliminary synthesis of monomers underway.
1-25-80 Examples prepared for subjective evaluation.
3-80 Inventors hope to complete this project by the end of August.
6-30-80 Project being actively pursued by inventor Grubbs and assistant. Should be completed by end of summer.
9-10-80 Monomer synthesized and attempts to polymerize underway according to Grubbs.

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0000016296

915 MEANS FOR REDUCING SPHERICAL ABERRATION IN A LENS

D. Lowitz
Applied Research/Farone/Lowitz

This is directed to facilitate micro images with a CO₂ laser perforator which produces an invisible beam, or to generally focus invisible beam laser. When using a lens to focus a laser beam, a second or additional element may be provided that is essentially a lens element in its basic construction, but which does not have any center portion. Because lens elements of a finite size and thickness normally introduce spherical aberration, such an additional element that does not have a center region of material can be used together with the primary lens element to modify the effective focal length of the outer portion of the primary lens and to make it equal to the center portion of the primary lens, and thereby eliminate spherical aberration and permit focusing to a spot.

Sarofeen
CODE 2

8-27-79	Disclosure received—inventor notified.
9-5-79	Disclosure assigned to Sarofeen.
11-20-79	Inventor is preparing technical data.
1-24-80	No further material received to date.
4-14-80	Inventor considering advanced design.
9-4-80	Inventor now preparing new disclosure.
1-15-81	New disclosure not yet received.

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0000016297

918 INERTIAL FRICTION DRIVE CONVEYOR CHAIN SYSTEM

M. Slovic
Stemmery

A system for conveying palleted or flat sided materials such as load containing boxes. The basic component is a roller or slide chain comprising a top mounted roller in an upwardly projecting lug. The chain is driven preferably in a channel guide. The load bearing upwardly projective lugs receive the load on a lug mounted roller. the weight of the load pressing against the upper rollers causes it to move with the chain supported on the rollers. An impediment to the movement of the load such as a stop at the end of desired travel causes the chain to underide the stopped portion of the load while continuing to advance other portions of load along the chain lengths.

INACTIVE Sarofeen
8-29-79 Disclosure received--inventor notified.
9-5-79 Disclosure assigned to Sarofeen.
9-12-79 Search requested from outside firm.
10-8-79 Search received--sent to inventor for review.
11-20-79 Search results show very close art.
1-24-80 Due to be inactivated.
4-14-80 Inventor is considering possible points of novelty.
6-27-80 New disclosure being prepared by inventor
9-4-80 Very close prior art--still under study.
11-5-80 No new material received as yet.
1-15-81 No new material received as yet.
1-21-81 Inactivated.

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922 HIGH STRENGTH RECONSTITUTED TOBACCO SHEET WITHOUT NONTOBACCO ADDITIVES

G. Gellatly, J. Baggett, G. Wilkinson, G. Jenkins
Tobacco Materials/Burns/Gannon

Simple sheet making process to minimize processing steps and capital expenditure. Tobacco materials are pressurized with steam for about 1 hour and the pressure released rapidly. This disintegrates the structure of the tobacco to a paste. This paste can then be cast into a sheet or formed by paper making techniques into a sheet of superior strength to other known processes.

INACTIVE Inskeep
10-79 Disclosure received - inventor notified.
11-79 Assigned to Inskeep.
3-31-80 Work by inventors is progressing.
9-10-80 No further information received.
11-18-80 Inactivated per Burns.

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0000016298

925 NWA IMPROVEMENTS

W. Nichols
Cigarette Development/Gauvin/Meyer

Sarofeen

9-14-79 Disclosure logged in - inventor notified.
1-24-80 One case (PM 914, Gergely) based on these improvements has been filed.
4-14-80 Awaiting further disclosures and developments.
6-27-80 Awaiting further disclosure and developments.
9-4-80 New material not yet received.
1-15-81 Inventor awaiting input re permission to disclose further data.

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926 CHEMICAL STRUCTURES WHICH FACILITATE TRANSPORT OF MATERIALS ACROSS BILAYERS

J. Lephardt
Analytical Research/Bourlas/Lowitz/Farone

The objective of the structures is to provide a transport mechanism for moving material between the interior and exterior of bilayer structures.

INACTIVE

Inskeep

CODE 4

9-26-79 Disclosure received - inventor notified.
10-31-79 Assigned to Inskeep.
1-10-80 Search requested from outside firm.
2-21-80 Search received—to inventor for review.
3-31-80 Inventor sees no direct anticipation; will aim for an example.
9-8-80 Status undetermined.
11-24-80 Memo to management proposing inactivation.
12-1-80 Inactivated per Lowitz.

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0000016299

940 FUME HOOD

R. Kelly
Q A Link

This fume hood comprises a unique ducting system which includes a base scavenging aperture which collects fume-fall vapors. Vapors of heavier than air solvents which exit the front ledge of a fume hood in a waterfall action and frontal spills which result in vapors are suctioned off at the floor level by a duct at the lower front of the hood. The lower duct is connected to the main system.

INACTIVE

Sarofeen
11-14-79 Disclosure received - inventor notified.
12-79 Assigned to Sarofeen.
12-20-79 Search received from K&S--to inventor for review.
1-24-80 Request for recommendation of AIP for disposition.
4-15-80 Inventor checking with management on disposition..
9-4-80 No word returned to date.
1-15-81 Inactivated.

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941 EXTRACTION AND DENITRATION OF BURLEY STRIP

S. Muller
Tobacco Materials/Burns/Gannon

Burley strip enters the washer at the end opposite the press section. The strip is sandwiched between two porous belts and immersed in the extraction medium. Upon exiting the washer, the belts and the strip are passed through a press section to remove excess liquor. Each of the washer's two porous belts has a tensioning device to compensate for changes in length during processing. The washer operates at a continuous wash rate of 200-300 pounds per hour.

Blish
11-20-79 Disclosure received - inventor notified.
1-21-80 Assigned to Hutcheson; discussed with manager.
3-80 Close art found on apparatus aspects of the invention.
5-19-80 Memo to inventor and others requesting that they consider prior art and distinguish the apparatus previously disclosed.
7-30-80 Sent informal note to K. Burns regarding resolution of this disclosure.
1-26-81 Case reassigned to Blish.

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0000016300

942 COMPOUND TO ADD TO TOBACCO TO PRODUCE NICOTINE UPON SMOKING

W. Chan
Chemical Research/Sanders/Osdene

The object of the invention is to provide compound(s) which when added to tobacco will produce nicotine upon smoking. Nicotine and ethyl bromoacetate reacted in ethanol in the presence of potassium carbonate to give ethyl 2-(3-pyridyl)pyrrolidylacetate. Hydrolysis of the acetate gave the corresponding acid. Preliminary pyrolytic data indicated the acid will decarboxylate in good yield to give nicotine at a temperature as low as 200°. Iso-propenyl ester can be obtained either by direct esterification or trans-esterification. Polymerization of the said ester will produce a polymeric material which on pyrolysis should produce the free acid followed by simultaneous decarboxylation to give nicotine.

Related to 703.

Inskeep
11-21-79 Disclosure received - inventor notified.
12-79 Assigned to Inskeep.
1-2-80 Copy of disclosure sent to Depaoli re PM 703.
3-25-80 Latest information, examples will be forthcoming.
11-24-80 Inventors trying to make compounds that perform.

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944 PREPARATION OF MIXED MALONATE ESTERS

E. Southwick
Chemical Research/Sanders/Osdene

Malonate esters useful as monomers for the preparation of flavor release agents.

Inskeep
12-12-79 Disclosure received--inventor notified.
1-21-80 Assigned to Inskeep.
3-25-80 Experimental work needed.
9-10-80 Polymer has been made, pyrolytic analysis in progress.
1-15-81 Inventor still attempting to make satisfactory products.

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0000016301

948 APPARATUS FOR PRESSURE DROP MEASUREMENT OF FIBROUS ARTICLES

W. Nichols
Cigarette Development/Gauvin/Meyer

Object: measure the RTD of non-wrapped acetate filters.

INACTIVE Blish
1-25-80 Disclosure received--inventor notified.
2-19-80 Assigned to Blish.
9-26-80 In-house search completed.
10-16-80 Search results to inventor for review.
1-21-81 Inactivated due to close prior art.

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951 TREATMENT OF PRINTED CIGARETTE TIPPING PAPER

R. Armstrong
Analytical Research/Bourlas/Farone/Lowitz

The invention consists of the treatment of printed cigarette tipping paper with ozone or excited atomic or molecular species of oxygen or nitrogen or combinations thereof which are formed by electrical discharge spark or corona around a charged wire in proximity to the paper. The result of this treatment is to change the surface of the printed paper so that its reception of adhesives is enhanced and thereby improve the performance of the tipping paper in high speed cigarette manufacture.

INACTIVE Blish
CODE 2
2-11-80 Disclosure received--inventor notified.
2-19-80 Assigned to Blish.
6-15-80 In-House prior art search conducted.
7-16-80 Search results to inventor for review.
8-15-80 Inventor's comments on search received.
12-31-80 Inactivated pending further research by inventor.

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0000016302

952 PORTABLE PROGRAMER SYSTEM

W. Smick
Engineering/Grollimund/Kay/Pasquine

Object: This unit provides a quick and easy means of operating a piece of equipment, under prototype conditions, to develop an operating sequence and test the equipment at a minimal cost. Description: A portable programmer system is being used to provide electrical control and power to operate the Malaucene rewinder and optical table. This system incorporates a Texas Instruments programmable controller on various 6MI I/O components as well as conventional power equipment.

Divided out of 892.

Sarofeen

2-18-80 Disclosure received--Kay notified.
6-27-80 New disclosure being prepared by inventor.
9-4-80 Inventor is not ready with best mode.
11-5-80 New disclosure not received to date.
1-15-81 New disclosure not received to date.

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959 FLAVOR SYSTEM

J. Kang
Chemical Research/Sanders/Osdene

Economical means for the production of flavor components. Almost all carbohydrates react with nitrogen-containing compounds under mild conditions to produce pyrazine compounds and react with sulfur compounds to produce thiophene compounds. For the production of these flavorant compounds, one does not have to use expensive starting materials such as tobacco or pure chemicals. Wood dusts, instead, can be used, which is a most abundant industrial waste. They can be pyrolytically treated with nitrogen or sulfur-containing compounds. The products obtained will be, understandably, a mixture of components of various complexity. The crude product can be extracted by simple techniques, and then applied an additive to tobacco filler. Or the crude product can be used directly without further separation or purification.

INACTIVE Inskeep

4-8-80 Disclosure received--inventor notified.
4-80 Assigned to Inskeep.
4-17-80 In-house search completed.
8-12-80 Memo to inventor requesting more info.
1-22-81 Meeting with inventor and others: importance, economics, direction for study. So far only sugar reactions. Inactivated until results come out.

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0000016303

961 CIGARETTE PACKAGING

Engineering/Kay/Pasquine

Open-ended, semi-rigid outer sleeve for packaging cigarettes.

Palmer

4-16-80 Disclosure received from J. Kay--notified.

4-16-80 Search requested from outside firm.

5-9-80 Search received.

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966 DEVICE THAT PUNCTURES THROUGH TIPPING PAPER

S. Stone

Cigarette Development/Gauvin/Meyer

Object: This device will lower TPM delivery while affording the smoker the same taste (i.e. his present brand) without going to a lower tar and nicotine brand. Description: A device that punctures through both tipping paper and/or plug wrap into the filter. By doing so, this device will increase or create ventilation in a cigarette. Venting in this way differs from other ways of venting, in that this device punctures the cigarette after it has been bought.

INACTIVE Blish

5-21-80 Disclosure received--inventor notified.

6-3-80 Assigned to Blish.

9-29-80 Prior art search completed.

10-3-80 Search results to inventor for review.

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969 DOUGHNUT SEALED FILTER

R. Hale and R. Ikeda

Flavor Development/Daylor/Meyer

Advantages Over Prior Art: Will increase the RTD of the filter pulling more smoke through the tobacco rod on the first few puffs. The tar will deposit on the opening of the filter giving less tar as the cigarette is smoked. This levels off the tar delivery making each puff about the same for the smoker. As the opening on the CA is blocked more air comes through the dilution holes in the filter. Description: The tobacco end of the filter is sealed with a heated rod leaving a small portion unsealed in the middle of the CA filter.

INACTIVE Blish

5-29-80 Disclosure received--inventors notified.

10-10-80 In-house search completed.

11-6-80 Search results to inventors for review.

1-12-81 Inactivated.

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0000016304

971 SELECTIVE REMOVAL OF METALLIC IONS FROM TOBACCO
SOLUBLES USING MEMBRANE ELECTRODIALYSIS

G. Keritsis
Tobacco Materials/Burns/Gannon

An improved method for selectively removing positively charged ions from tobacco extracts using electrodialysis. Smoking products containing the thus treated tobacco have improved smoking properties.

Related to 953.

Hutcheson

7-7-80 Disclosure received--inventor notified.
9-3-80 Inventor submitted experimental data.
9-10-80 Data organized and forwarded to T. Gillis for consideration.
12-10-80 Instructions to Gillis to pursue study.
1-81 Gillis has incorporated the improvements into 867A CIP which she is presently preparing.

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974 DISC TO PULSE AND SUBDIVIDE A CONTINUOUS LASER BEAM

P. Martin
Engineering/Kay/Pasquine

A technique developed to use a single disc to pulse and subdivide a continuous laser beam. The disc is simply constructed and can either be bevelled or inclined of an angle. A mirror is introduced to re-focus the reflected beam and to either pass it back through the rotor or direct it to the final focussing lense.

Related to 972.

COMBINED Sarofeen

7-14-80 Disclosure received--inventor notified.
9-4-80 Impacts on 972--awaiting additions to 972 disclosure.
1-15-81 Combined with 972.

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0000016305

977 RL BLENDING

J. Osmalov and F. Sherwood
Tobacco Services/Osmalov/Gannon

At the present time RL is produced in sheet form and then subsequently thrashed or cut into squares which are subsequently processed as part of the leaf blend. My idea is to eliminate the handling of RL as a leaf component and to add it back into the blend as a cut filler component in the same manner as ET and ES. Accordingly, I would propose that at the end of the sheet making process slitters and cutters be installed to produce shreds of RL. This material could then be added directly into the blend as we currently do ET. By utilizing my idea we would eliminate the need for cutting the RL with the rest of the leaf blend and the subsequent redrying of the RL thus reducing the load on the Adt dryers in the Manufacturing Department. The advantages of this approach become very obvious from a Primary point of view.

Inskeep
7-21-80 Disclosure received--assigned to Inskeep.
11-10-80 Work in progress.

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980 A PROCESS TO ABATE THE PRESENCE OF TOBACCO PARTICLES
FROM PACKAGE

C. Moogalian
Flavor Development/Daylor/Meyer

Abate the conspicuous presence of tobacco fines by placing plastic film on the inside of the package in contact with the tobacco end of the cigarettes so that the fines will be trapped by the electrostatic charge possessed by the film.

Blish
8-15-80 Disclosure received--inventor notified.

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0000016306

981 FLAVORED NONTOBACCO FILLER THAT DOES NOT REQUIRE COMBUSTION FOR FLAVOR RELEASE

C. Moogalian
Flavor Development/Daylor/Meyer

This idea is concerned with a flavored non-tobacco filler that does not require combustion for flavor release. The filler could be cellulose acetate tow which is flavored and contains a potential chemical heat and basic pH source. Materials such as tobacco nesinoids and other selected flavorants would be contained in the tow. Chemically bound flavorants which are released by heat and/or pH changes would be used, such as nicotine in the form of its malate or sulfate salt. flavors encapsulated in waxes of different melting points may be desirable for a more sustained release. The activation of the flavor release from the "cigarette" could come from an activator which injects a small amount of perhaps an acidic solution into the rod.

Inskeep
8-20-80 Disclosure received--inventor notified.

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982 LIQUID LEVEL GAUGE

S. Barton
Engineering Services/Mutter/Gannon

Objective: To use readily available commercial material and standard parts to make a liquid level gauge. Commercially available gauges are expensive and have very long delivery time.

Blish
8-22-80 Disclosure received--inventor notified.

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985 LOW DELIVERY CIGARETTE

N. Rainer and G. Keritsis
Tobacco Materials/Burns/Gannon

Objects of the invention: (1) to provide a low delivery cigarette, (2) to provide an economical low delivery cigarette which does not require air dilution, (3) to provide a low delivery cigarette which may not have a visible filter, (4) to provide a cigarette wherein the filter is combustible and positioned within the tobacco rod segment of the cigarette.

COMBINED Blish
8-27-80 Disclosure received--inventors notified.
8-28-80 Memo to manager: proceed?
9-11-80 This disclosure identical to PM 955; combined therewith.

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0000016307

987 METHOD AND APPARATUS FOR DETECTING THE PRESENCE OF
REQUIRED CIGARETTES AND FILTERS

R. Knight
Engineering/Pasquine/Kay

The object of the invention is to detect the presence of the required number of cigarettes and filter, also check for sufficient tobacco in each and more reliably in one operation.

Sarofeen

9-11-80 Disclosure received--inventor notified.

9-17-80 Memo to Kay: do we proceed?

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989 RESPONSE TO MENTHOL

E. Sanders
Chemical Research/Sanders/Osdene

Hutcheson

9-16-80 Disclosure received--inventor notified.

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993 IMPROVED VIBRATORY PNEUMATIC TOBACCO FEEDER

J. Perkins
Engineering/Pasquine/Kay

A tobacco feeder for supplying a number of cigarette makers utilizes a variable speed conveyor belt and a programable flap system to minimize tobacco recirculation and hence breakage when less than all makers are being supplied.

Blish

9-18-80 Disclosure received--inventor notified.

9-24-80 Assigned to Blish.

1-19-81 In-house search completed--to inventor for review.

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0000016308

994 SELECTIVE FILTRATION

E. Sanders
Chemical Research/Sanders/Osdene

Inventor proposes modification to the cellulose backbone of the filter as in the following examples. Grafting of an alkyl carboxylic acid chain onto the cellulose would reduce the amount of nicotine in mainstream smoke; grafting of an alkyl amine onto the cellulose would enhance the nicotine in mainstream smoke; grafting an alkylthiol chain onto the cellulose would reduce the level of acrolein, and related compounds, in smoke. The necessary grafting could be accomplished either chemically or radiolytically.

Inskeep
9-18-80 Disclosure received--inventor notified.
1-16-81 Further work still in the future.

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996 LASER TEMPERATURE CONTROL OF AIR TEMPERATURE AND DEW POINT BY ALTERATION OF AN AIR CONDITIONER

E. Grollmund
Engineering/Pasquine/Kay

COMBINED Sarofeen
9-23-80 Disclosure received--inventor notified.
1-15-81 Combined with 995.

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997 FILTER ROD GROOVING TECHNIQUE

W. Mutter
Engineering Services/Mutter/Gannon

Palmer/Not Assigned
10-2-80 Disclosure received--inventor notified.
10-3-80 Letter to Kothe asking for analysis and opinion.
10-13-80 Torrente visit.

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0000016309

998 LASER PERFORATOR-FULL BEAM UTILIZATION SYSTEM

E. Grollmund
Engineering/Pasquine/Kay

Method for capturing and utilizing laser energy presently being discarded in our existing system. Methods for beam balancing-pulse balancing and power balancing. Method for converting a (4) beam (high power) laser system to an (8) beam (high power) laser system and/or converting and (8) beam laser system to a (16) beam laser system - per bobbin/per pass.

COMBINED Sarofeen

10-16-80 Disclosure received--inventor notified; assigned to Sarofeen.
1-15-81 Combined with 972.

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999 VARIABLE DILUTION FILTER

J. Adams
Engineering/Pasquine/Kay

Object of the invention: to have the customer be able to control the proportions of the constituents received through the filter.

Blish
10-28-80 Disclosure received--inventor notified.

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1002 APPARATUS TO ARRANGE TOBACCO LEAVES IN PROPER ORIENTATION

D. Teng
Biomaterials/O'Donohue/Farone/Lowitz

This invention is for a device to arrange tobacco leaves in a proper orientation so that the tips of tobacco leaves can be mechanically removed (tipping) before the stems are removed. Loose tobacco leaves are placed on a first conveyor. As the leaves fall off from the first conveyor the heavier end (stem-end) will go down first. When the leaves get to the slanted bottom of the tower the stem ends will be directed toward frond. Leaves will be carried by a second conveyor already oriented in the same direction. When the leaves hit a third conveyor, which is slanted and running perpendicular to the second conveyor they will be even at the stem ends. They can go through the tipping machine in a properly oriented manner.

Blish
CODE 2
11-17-80 Disclosure received--inventor notified.

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0000016310

1003 CIGARETTE

T. Laszlo

A cigarette that would be a composite having a core of normal filler, surrounded by an outer layer of tobacco treated to be incapable of sustaining combustion if not being puffed. Thus, only the core would sustain static burning. Since the core would be "normal" it would restart the rest once puffing was resumed. But this arrangement would help to avoid fires caused by contact with fabrics.

Palmer/Not Assigned

11-19-80 Disclosure received--inventor notified.

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1004 APPLICATION OF SOLID TOBACCO FLAVOR COMPOUNDS TO TOBACCO

F. Sherwood, T. Skidmore, J. Kliever
Tobacco Services/Osmalov/Gannon

A tobacco flavor compound is dispersed in a standard tobacco casing or after-cut solution and subjected to high shear mixing to reduce the particle size of the compound. The mixing or homogenizing can be accomplished in any of several commercially available homogenizers. Once mixed the dispersion is sprayed onto tobacco using conventional spraying techniques.

Palmer/Not Assigned

11-20-80 Disclosure received--inventors notified.

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1006 A. P. CAR INPUT AND OUTPUT

J. Long
Engineering/Kay/Pasquine

Object: Reduce spills of palletized loads of cased cigarettes during transition from a live roller conveyor to the stacker input station plus reduced maintenance and downtime due to the absence of critical hydraulic cushioning adjustments required on the present design.

Blish

12-10-80 Disclosure received--inventor notified.

12-17-80 Assigned to Blish.

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0000016311

1008 CIGARETTE DETECTION AND REJECTION DEVICE

R. Ripley and R. Knight
Engineering/Taylor/Kay/Pasquine

The device has tappets able to slide acially against a spring biasing to bias the end of the cigarette and being adapted to trigger a control pulse if a cigarette is missing or faulty.

Blish
12-18-80 Disclosure received--inventors notified.

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1009 TIPPING PAPER WITH PRETREATED ADHESIVE

C. Hoelzel
Physical Research/Kassman/Farone/Lowitz

CODE 1
1-19-81 Disclosure received--inventor notified.

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1010 HEATED DIE FOR CARBONIZED MATERIAL WITH ESSENTIALLY CIRCULAR CROSS-SECTION

D. Full
Biomaterials/O'Donohue/Farone/Lowitz

Blish
CODE 4
1-21-81 Disclosure received--inventor notified.

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1011 EXPANDED TOBACCO--PROCESS IMPROVEMENT

T. Laszlo

1-22-81 Disclosure received--inventor notified.

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1012 DENITRATION OF TOBACCO EXTRACT LIQUOR OR SOLID TOBACCO MATERIAL

B. Semp and D. Teng
Biomaterials/O'Donohue/Farone/Lowitz

CODE 2
1-26-81 Disclosure received--inventors notified.

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0000016313